

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

December followed the example of the two previous months in being unusually stormy, with the percentage of days of winds of gale force considerably above the normal over the greater part of the ocean, and especially so in southern waters. The greatest number of gales occurred in the 5-degree square between 45° and 50° N., and 30° and 35° W., where they were reported on 12 days.

Judging from reports received, the number of days with fog was considerably below the normal over the Grand Banks, the steamer lanes, and off the European coast. Fog was also somewhat less frequent than usual off the American coast, but was reported on two days in the Gulf of Mexico.

TABLE 1.—Averages, departures, and extremes of atmospheric pressures at sea level, 8 a. m. (75th meridian), North Atlantic Ocean, December, 1925

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inches	Inches		Inches	
St. Johns, Newfoundland.	29.55	-0.27	30.50	2d.	28.40	24th.
Nantucket.	29.84	-0.25	30.32	1st.	29.34	12th.
Hatteras.	29.99	-0.15	30.54	29th.	29.52	2d.
Key West.	30.05	-0.04	30.32	23d.	29.80	1st.
New Orleans.	30.13	+0.01	30.68	28th.	29.68	4th.
Swan Island.	29.90	-0.08	30.02	23d.	29.82	1st.
Turks Island.	30.06	+0.03	30.18	29th.	29.92	Do.
Bermuda.	30.05	-0.10	30.32	24th.	29.74	10th.
Horta, Azores.	29.76	-0.38	30.16	14th.	28.94	4th.
Lerwick, Shetland Islands.	29.53	-0.19	30.43	4th.	28.51	29th.
Valencia, Ireland.	29.71	-0.24	30.45	16th.	28.71	20th.
London.	29.78	-0.24	30.44	5th.	28.63	Do.

¹ From normals shown on H. O. Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m., 75th meridian.

² And on other dates.

Unusually low pressure prevailed at the majority of the stations. At Horta a barometer reading of 28.12 inches was reported on the evening of the 3d, accompanied by a westerly wind of approximately 90 miles an hour, while the average reading for the first decade of the month was 29.55 inches. There were also two other disturbances of lesser intensity during the month in the vicinity of the Azores and the intrusion of low pressure into the region usually occupied by the North Atlantic HIGH was responsible for much of the abnormal weather over the ocean.

Charts VIII to XII, which cover the period from the 1st to 5th inclusive, show most unusual conditions for a winter month, with the tropical disturbance, described elsewhere in the REVIEW, and the severe and extensive disturbance in the vicinity of the Azores. On the 6th the center of the latter was near 47° N., 22° W.; it had decreased somewhat in intensity and extent although moderate to strong gales still prevailed over the middle and eastern sections of the steamer lanes. On the 7th this depression was central about 5 degrees west of the south coast of Ireland, and on the 8th to 10th over the North Sea. On the latter date moderate weather prevailed over the eastern portion of the ocean, while from the 7th to 9th gales were encountered east of the 30th meridian. On the 8th there was a secondary LOW central over the western islands of the Azores that drifted slowly northeastward, gradually filling in, and on the 10th the center was near 41° N., 24° W., with light to moderate winds over the eastern section of the ocean.

On the 7th and 8th northeasterly to northwesterly winds, force 7, were reported from the Gulf of Mexico.

On the 9th Father Point was near the center of a LOW that moved slowly eastward until the 11th, when it was off the east coast of Newfoundland. Between these dates moderate to strong westerly gales were encountered west of the 40th meridian, the storm area reaching its greatest extent on the 11th. On the 12th and 13th the center was near 40° N., 30° W., and on these dates the area had contracted considerably and covered a limited region near the center of the low.

On the 12th there was also a depression over Maine and Quebec that moved slowly eastward and on the 16th and 17th was central near St. Johns, Newfoundland, while from the 14th to 16th westerly gales were reported by vessels in the southerly quadrants.

On the 16th there was a LOW near 47° N., 35° W., that moved very slowly eastward and on the 22d was over the British Isles. From the 18th to 21st the storm area extended as far south as the Azores, where westerly gales with low barometric readings prevailed. On the 17th and 18th an extensive area of low pressure was over the western section of the steamer lanes, that by the 19th had apparently joined forces with the eastern LOW. On these two former dates a few scattering reports were received indicating moderate gales between the 30th and 45th parallels and 35th and 55th meridians.

On the 19th and 20th low pressure prevailed in the Gulf of Mexico and on the former date gales were reported by vessels in the region between the west coast of Florida and the 90th meridian.

On the 20th there was a disturbance along the American coast between Chesapeake Bay and Hatteras that moved slowly northeastward and on the 23d was central near Sydney, N. S. On the 21st it was accompanied by moderate weather, but by the 23d heavy northwesterly gales prevailed between Hatteras and Nantucket. By the 24th this LOW had developed considerably and was central near 48° N., 47° W., while strong gales prevailed over the greater part of the steamer lanes, attaining hurricane force near the center. On the 25th, with the center near 50° N., 40° W., violent westerly gales continued over an extensive region between the 40th and 55th parallels, west of the 20th meridian.

On the 27th and 28th there were two marked depressions, the first central off the coast of Newfoundland and the second in the vicinity of the British Isles. On the latter date storm reports were received from vessels in practically all parts of the ocean between the 30th and 50th parallels. On the 28th there was a "norther" in the Gulf of Mexico, the wind attaining a maximum force of 9; this was due to the steep pressure gradient, as the barometer readings were 30.68 inches at New Orleans, 30.72 inches at Galveston, and 29.96 inches at Swan Island.

On the 29th stormy weather still prevailed east of the 50th meridian, while over the western section of the ocean moderate winds were the rule. By the 30th the storm area had contracted considerably and was now restricted to that section of the steamer lanes east of the 40th meridian. On this date moderate northwesterly gales were also reported by vessels between the Bermudas and 55th meridian.

On the 31st the third disturbance of the month surrounded the Azores, and at the morning observation at Horta a southerly wind, force 8, with a barometric reading of 29.76 inches, was reported. On this date westerly gales were encountered as far west as the 50th meridian, while moderate weather prevailed over the northern steamer lanes.